CLAIMS

1. A method for enrichment/separation of a protein or a peptide, comprising separating a protein or a peptide containing an amino acid residue with a π electron-containing group by using a media with a π electron-containing group.

2. The method according to claim 1, wherein the amino acid residue with a π electron-containing group is tryptophan residue.

3. The method according to claim 1, wherein the π electron-containing group of the media is phenyl group.

4. A method for enrichment/separation of a protein or a peptide, comprising separating a protein or a peptide containing an amino acid residue with a π electron-containing modifying group, which is modified with a π electron-containing compound, by using a media with a π electron-containing group.

5. The method according to claim 4, wherein the amino acid residue is tryptophan residue.

6. The method according to claim 4, wherein the π electron-containing compound is a sulfenyl compound having π electrons.

7. The method according to claim 6, wherein the sulfenyl compound is 2-nitrobenzene sulfenyl chloride.

8. The method according to claim 4, wherein the π electron-containing group of the media is phenyl group.

9. A method for enrichment/separation of a peptide, comprising the steps of:

fragmenting a protein or a peptide containing an amino acid residue with a π electron-containing group, to obtain a fragmented sample solution which contains a peptide fragment containing the amino acid residue with the π electron-containing group and a peptide fragment with no π electron-containing group; and

exposing the fragmented sample solution to a media with a π electron-containing group, to separate the peptide fragment containing the amino acid residue with the π electron-containing group from the peptide fragment with no π electron-containing group.

10. A method for enrichment/separation of a peptide, comprising the steps of:

modifying a protein or a peptide with a π electron-containing compound to obtain a sample solution which contains a protein or a peptide containing an amino acid residue with a π electron-containing modifying group;

fragmenting the protein or the peptide containing the amino acid residue with the π electron-containing modifying group, to obtain a fragmented sample solution which contains a peptide fragment containing the amino

acid residue with the π electron-containing group and a peptide fragment with no π electron groups; and

exposing the fragmented sample solution to a media with a π electron-containing group, to separate the peptide fragment containing the amino acid residue with the π electron-containing group from the peptide fragment with no π electron-containing group.